100
Client
104a
Client
104b
Server
106
102
Partners
110
Treating Professional
108
Treating Professional
109

FIG. 1

Web Server
142
ERP Server
144
Treatment Server
146
Streaming Media Server
148
Firewall
150
102
106

Fig. 2

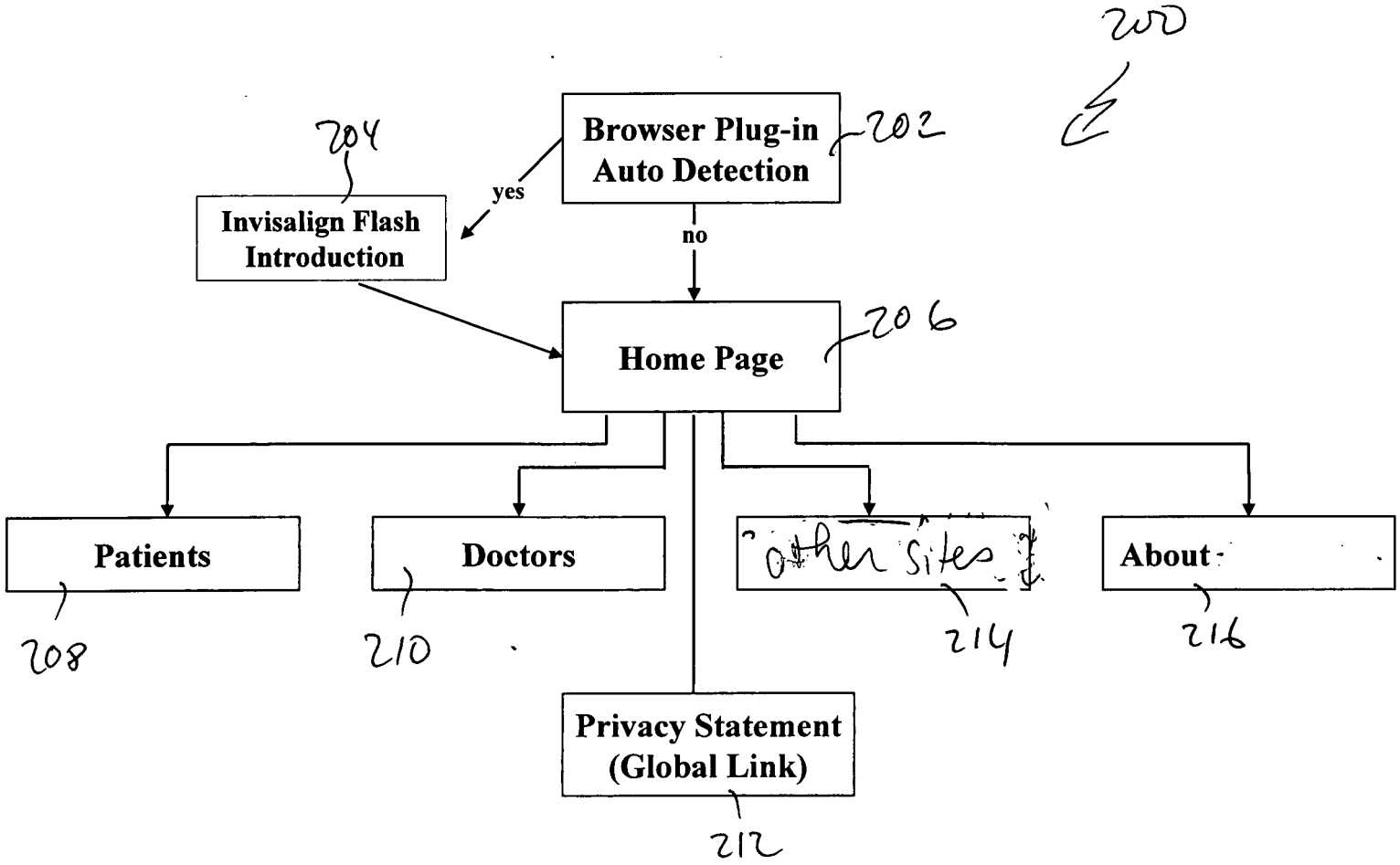
200
Browser Plug-in Auto Detection
202
yes
204
Invisalign Flash Introduction
no
Home Page
206
Patients
208
Doctors
210
other sites
214
About
216
Privacy Statement (Global Link)
212

Fig. 3

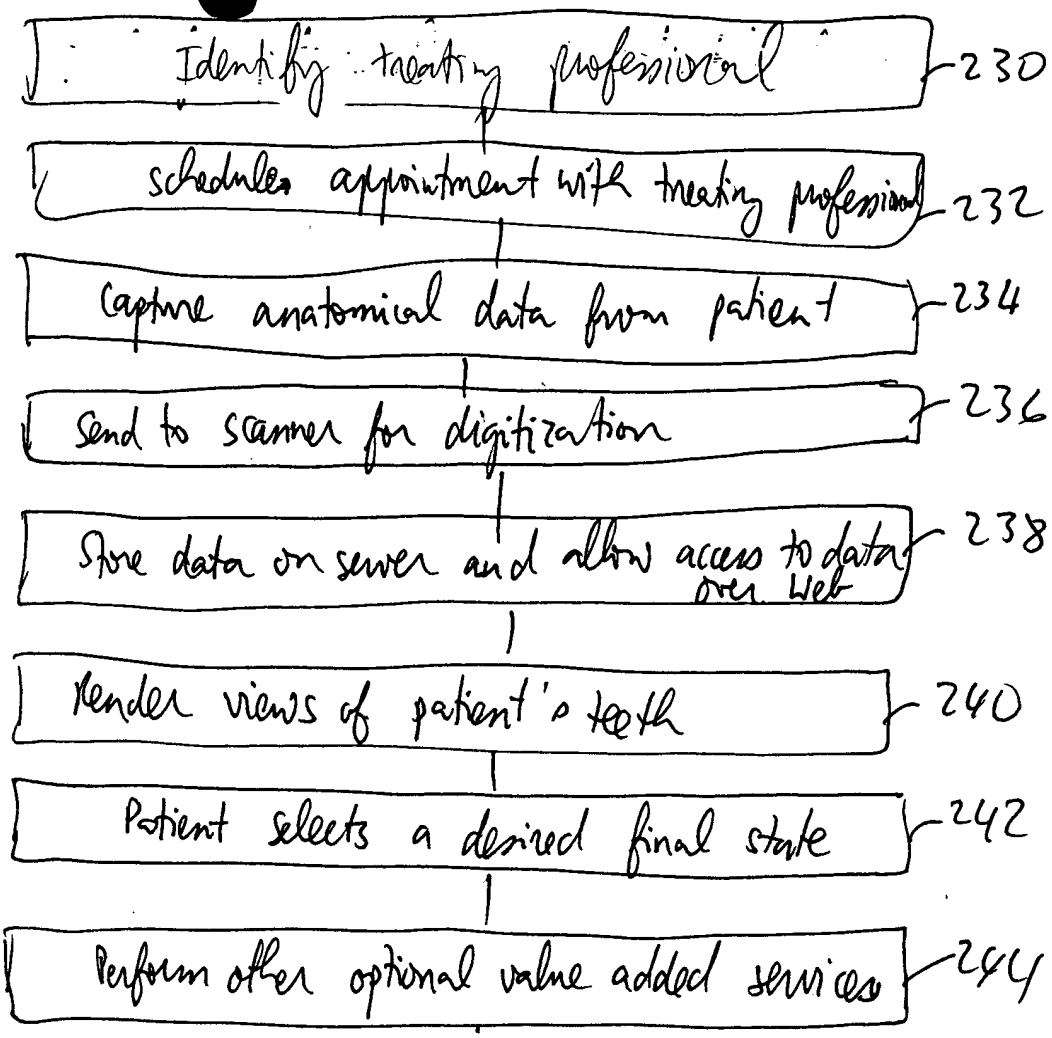
Identify treating professional
230
Schedules appointment with treating professional
232
Capture anatomical data from patient
234
Send to scanner for digitization
236
Store data on server and allow access to data over Web
238
Render views of patient's teeth
240
Patient selects a desired final state
242
Perform other optional value added services
244

FIG. 2B

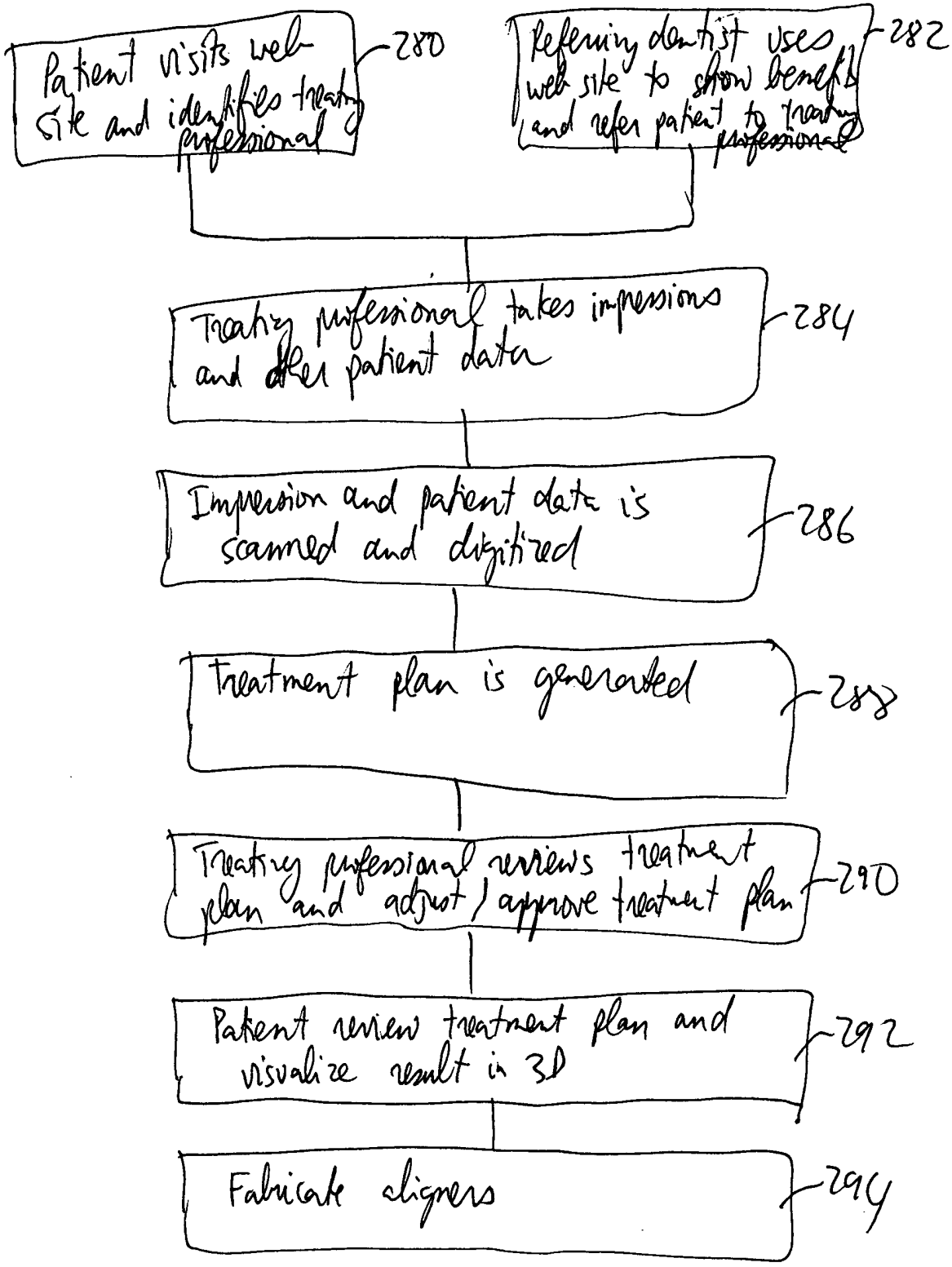
Patient visits web-site and identifies treating professional
280
Referring dentist uses web site to show benefits and refer patient to treating professional
282
Treating professional takes impressions and other patient data
284
Impression and patient data is scanned and digitized
286
Treatment plan is generated
288
Treating professional reviews treatment plan and adjust / approve treatment plan
290
Patient review treatment plan and visualize result in 3D
292
Fabricate aligners
294

Fig. 5

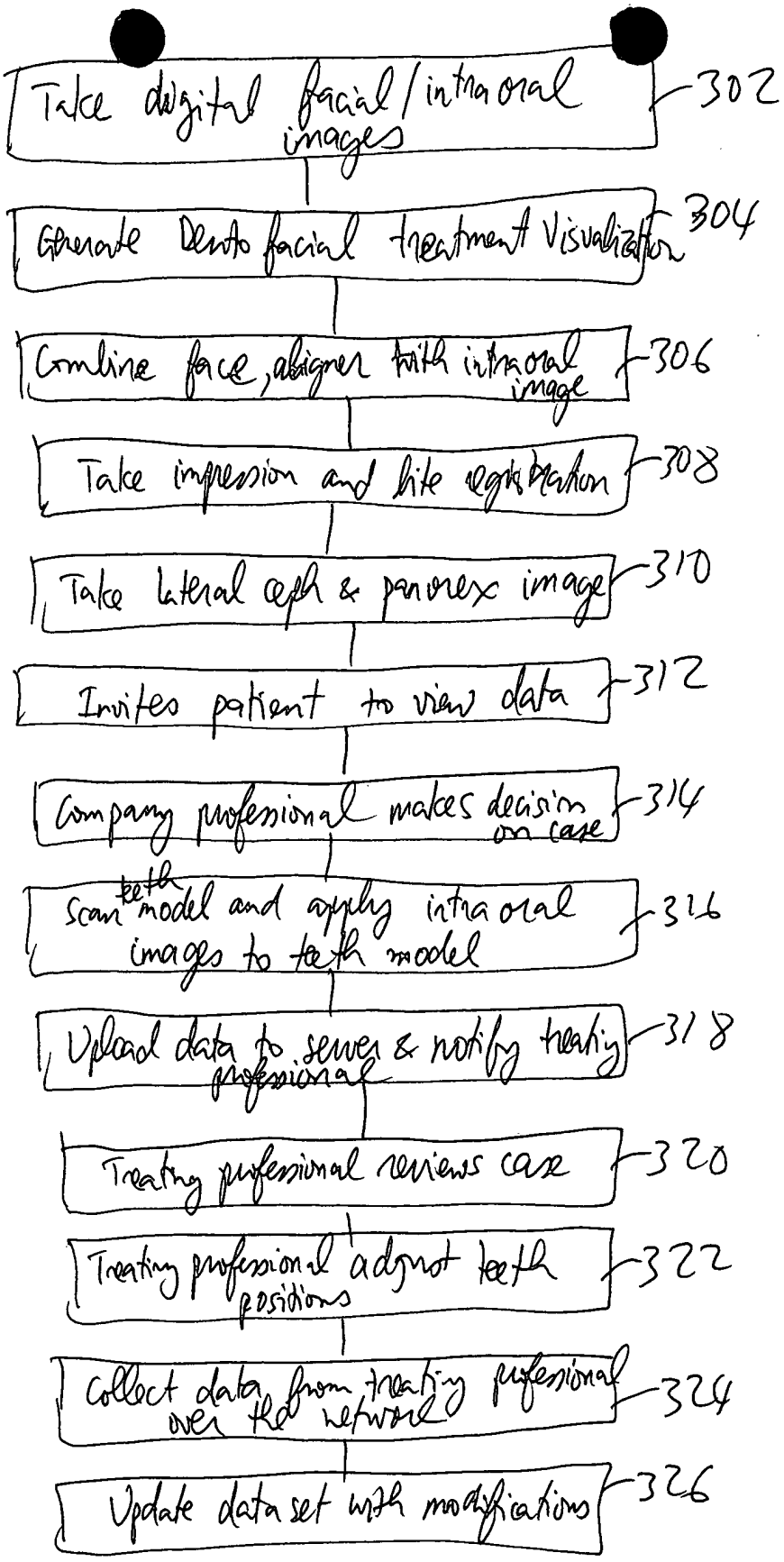
Take digital facial/intraoral images
302
Generate Dento facial treatment Visualization
304
Combine face, aligner with intraoral image
306
Take impression and bite registration
308
Take lateral ceph & panorex image
310
Invites patient to view data
312
Company professional makes decision on case
314
Scan teeth model and apply intraoral images to teeth model
316
Upload data to server & notify treating professional
318
Treating professional reviews case
320
Treating professional adjust teeth positions
322
Collect data from treating professional over the network
324
Update data set with modifications
326

Fig. 6

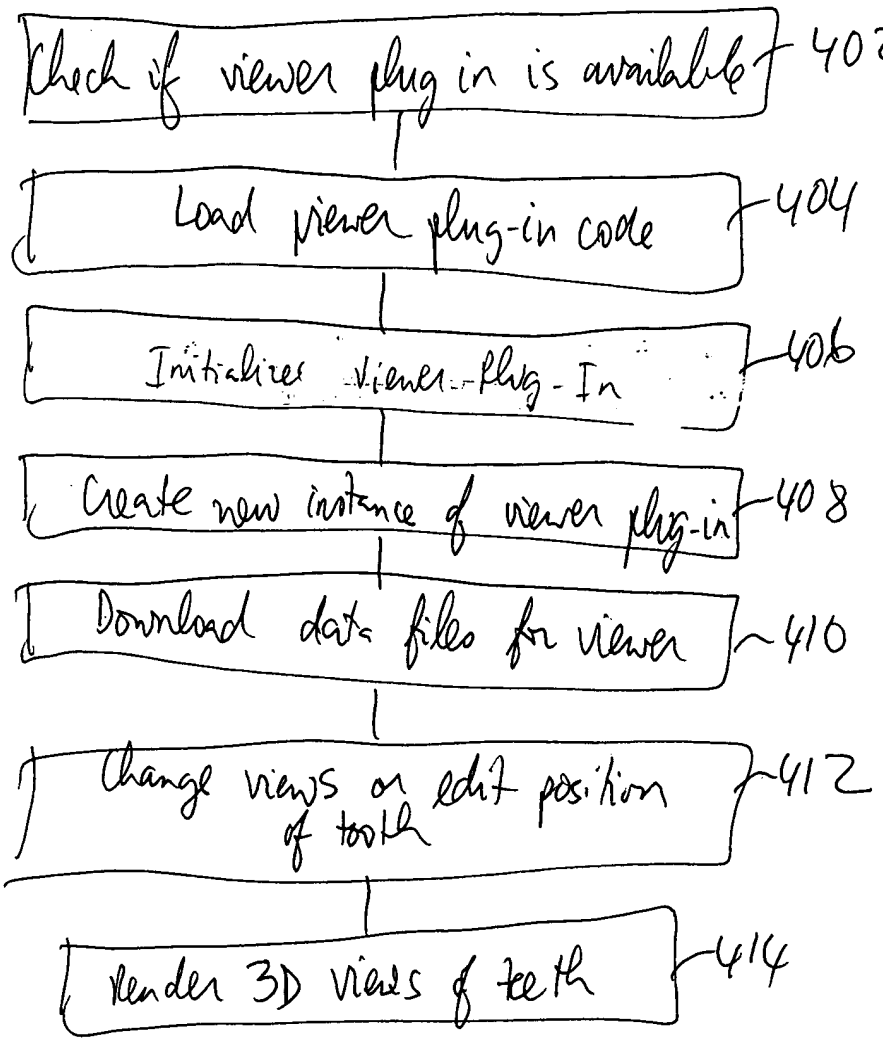
Check if viewer plug in is available
402
Load viewer plug-in code
404
Initialize viewer-Plug-In
406
Create new instance of viewer plug-in
408
Download data files for viewer
410
Change views or edit position of tooth
412
Render 3D views of teeth
414

FIG. 7

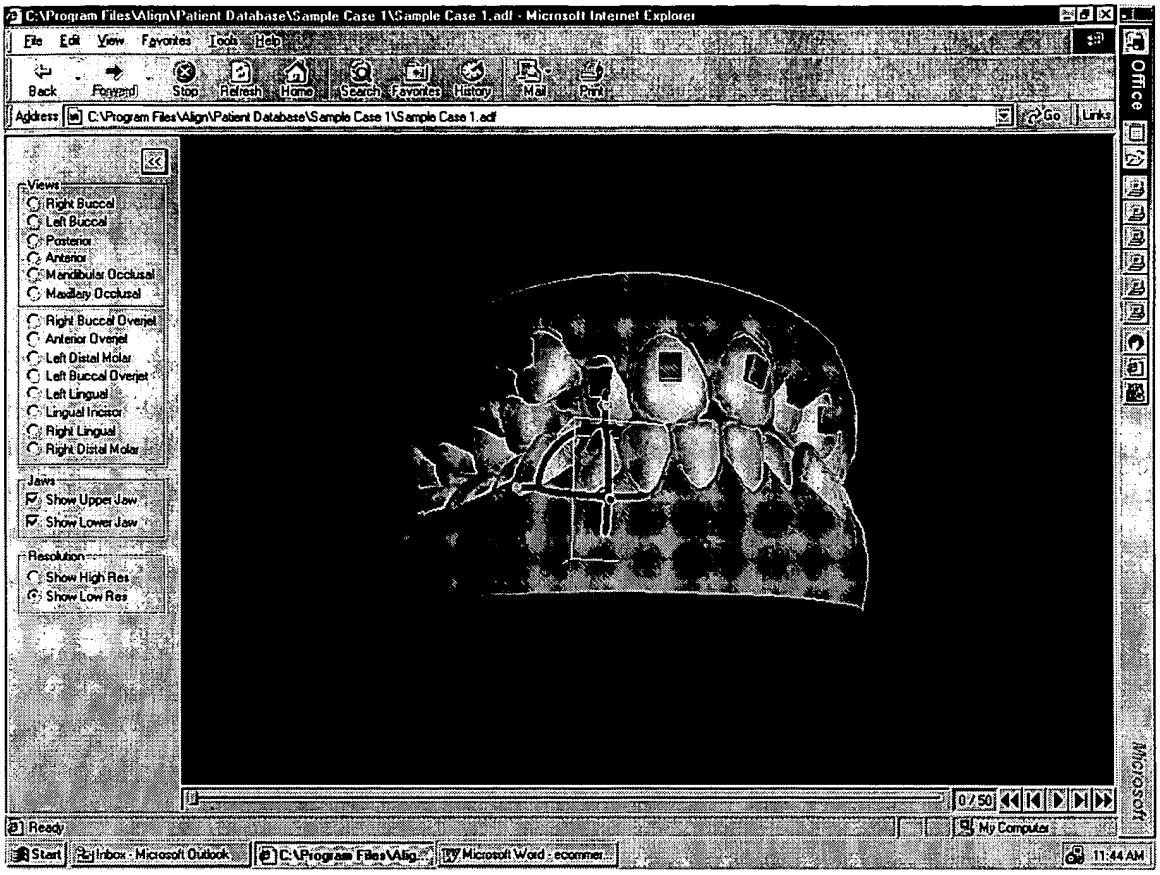
C:\Program Files\Align\Patient Database\Sample Case 1\Sample Case 1.adf - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Mail Print
Address C:\Program Files\Align\Patient Database\Sample Case 1\Sample Case 1.adf
Go Links
Views
Right Buccal
Left Buccal
Posterior
Anterior
Mandibular Occlusal
Maxillary Occlusal
Right Buccal Overjet
Anterior Overjet
Left Distal Molar
Left Buccal Overjet
Left Lingual
Lingual Incisor
Right Lingual
Right Distal Molar
Jaws
Show Upper Jaw
Show Lower Jaw
Resolution
Show High Res
Show Low Res
0 / 50
Ready
My Computer
Start
Inbox - Microsoft Outlook
C:\Program Files\Alig...
Microsoft Word - ecommer...
11:44 AM
Office
Microsoft

FIG. 8

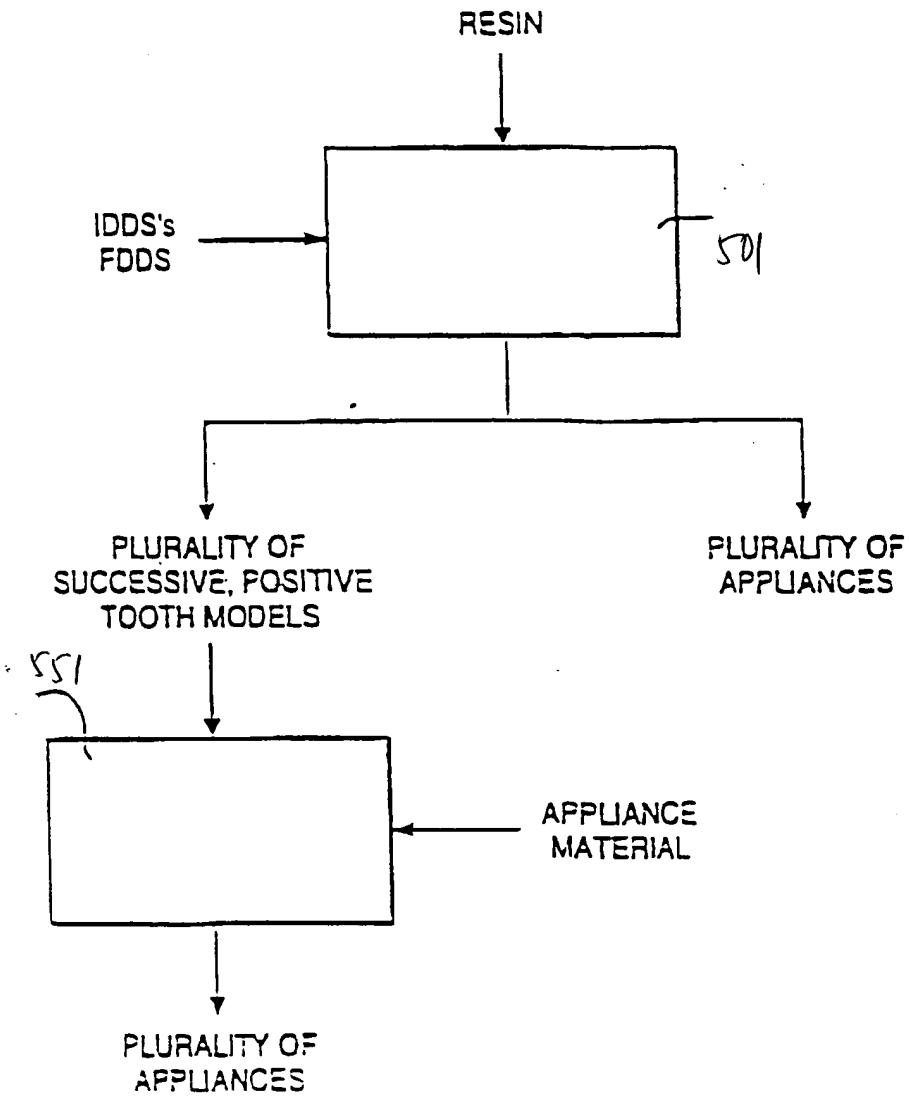
RESIN
IDDS's
FDDS
501
PLURALITY OF
SUCCESSIVE, POSITIVE
TOOTH MODELS
PLURALITY OF
APPLIANCES
551
APPLIANCE
MATERIAL
PLURALITY OF
APPLIANCES

FIG. 9

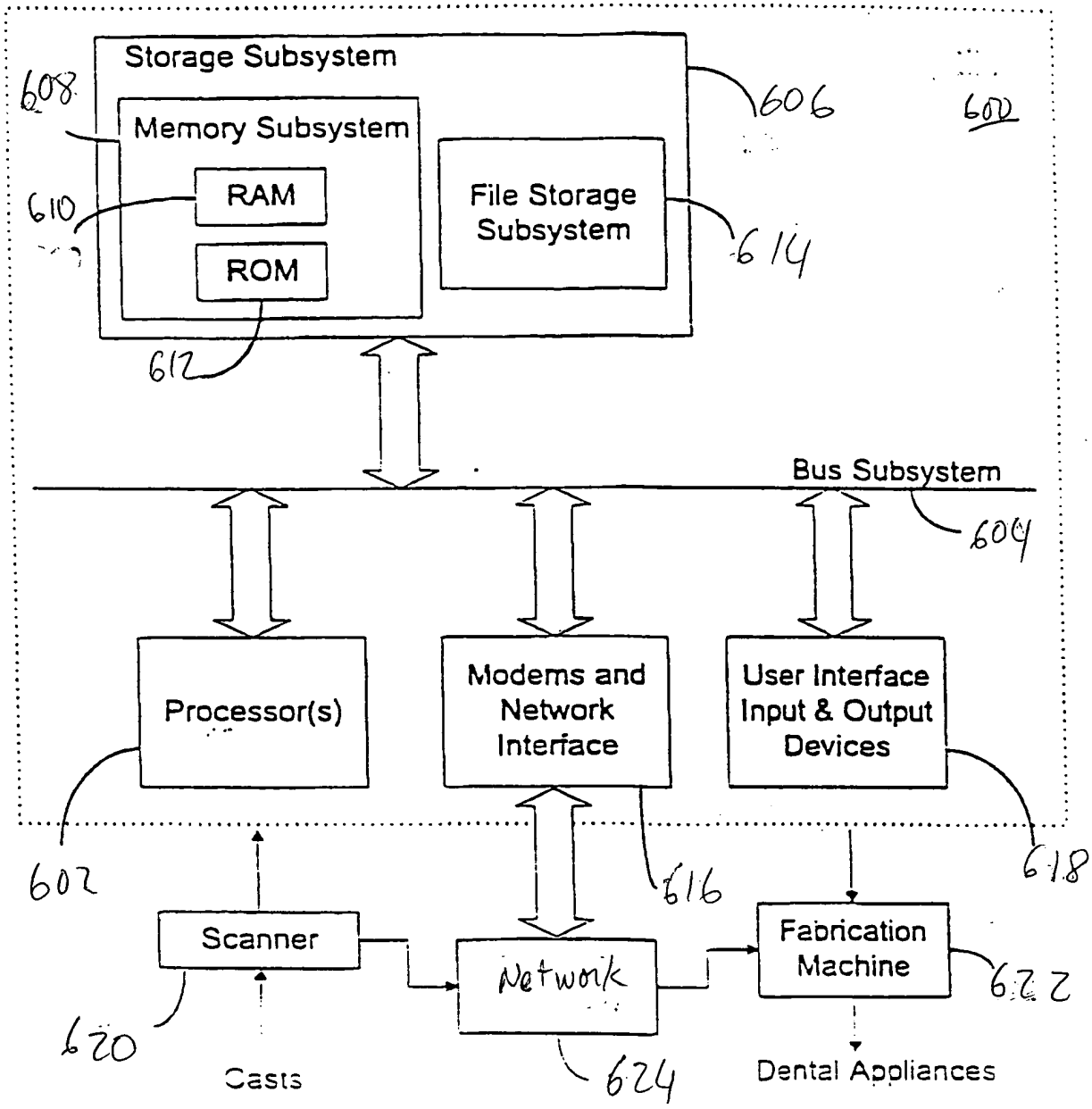
Storage Subsystem
608
606
602
Memory Subsystem
RAM
610
ROM
File Storage Subsystem
614
612
Bus Subsystem
604
Processor(s)
Modems and Network Interface
User Interface Input & Output Devices
602
616
618
Scanner
Network
Fabrication Machine
622
620
Casts
624
Dental Appliances

FIG. 10